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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,855	08/08/2004	Sung-san Chang	LITP0042USA	4854

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
P.O. BOX 506
MERRIFIELD, VA 22116

EXAMINER
HEYI, HENOK G

ART UNIT	PAPER NUMBER
2627	

NOTIFICATION DATE	DELIVERY MODE
11/20/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com
Patent.admin.uspto.Rcv@naipo.com
mis.ap.uspto@naipo.com.tw

Office Action Summary	Application No.	Applicant(s)	
	10/710,855	CHANG, SUNG-SAN	
	Examiner	Art Unit	
	Henok G. Heyi	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 09/29/07 under 37 CFR 1.131 has been considered but is ineffective to overcome the Ueno et al. (US 2005/0204373 A1) reference.

2. Applicant's sole argument is that the Ueno reference describes using only one control profile to drive the tray, and only one control profile is directly modified by increasing or decreasing the drive time T. However, Ueno teaches the use of multiple control profiles throughout his specification in addition to calculate an optimal drive profile through a simple algorithm by using the change in speed and elapsed time. Figs. 49, 50 and 51 show profiles during loading and ejection of the driving circuit within and outside a guaranteed range of temperature (see page 34 para [0612] +).

3. The amendment to claim 1 still doesn't make the specified claim allowable. Therefore, claim 1 and all other claims in this application stay rejected.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueno et al. US 2005/0204373A1 (Ueno hereinafter).

Regarding claim 1, Ueno et al teach a method of determining an optimal control profile for adjusting tray-in/out speeds of a tray in an optical disk drive, comprising: setting a plurality of control profile sets (FIGS. 49 and 50 show profiles during loading and ejection of the PWM driving circuit of the disk loading drive according to the present invention, page 34 para [0612]); driving the tray for movement with a control profile among the control profile sets; measuring a plurality of tray speeds of the tray when achieving a plurality of predetermined points in the control profile; determining a plurality of comparison values according to the plurality of tray speeds and a plurality of predetermined tray speeds; checking if the control profile is acceptable or not according to the comparison values; if acceptable, setting the control profile as the optimal control profile (the controlling means changes the drive profile by media in accordance with a result of the judgment obtained by the medium judging means， para [0209]); and if not acceptable, determining a next control profile among the control profile sets according to the comparison values (controlling means based on a predetermined drive profile in which a speed is set differently, page 15 para [0290]).

Regarding claim 2, Ueno et al teach the method of claim 1 and teach wherein the optical disk drive divides tray movement distance of the tray into a plurality of segments with the predetermined points (one example in detail with reference to FIG. 51(b), the drive profile during loading is divided into flat portions and inclined portions at inflection

points, the inclined portion between the inflection points P and Q is further divided for every predetermined period, and drive processing numbers are given to the divided portions [0632]); the optical disk drive further comprising a plurality of sensors operative to measure the speed of the tray corresponding to the predetermined points (calculating means which measures a loading time and an ejection time of the disk based on the a result of the detection performed by the detecting means, page 15 para [0290]).

Regarding claim 3, the method of claim 2, wherein tray speeds are calculated according to lengths of the segments and durations of the tray passing through the segments (calculating means which measures a loading time and an ejection time of the disk based on the a result of the detection performed by the detecting means, page 15 para [0290]).

Regarding claim 4, Ueno et al teach the method of claim 1 and wherein the comparison values are determined according to differences between the tray speed and the predetermined tray speed (the controlling means changes at least one of the speed and the elapsed time contained in the drive profile in accordance with a measured time measured by the calculating means, page 11 para [0207]).

Regarding claim 5, the method of claim 1, wherein the optimal control profile is determined by selecting one from a plurality of preset control profiles (a profile learning control apparatus which changes a profile in accordance with an individual difference, a change with time and the like, page 35 para [0630]).

Regarding claim 6, the method of claim 1, wherein the movement of the tray is tray-in (loading a tray into inside a disk drive or loading, page 1 para [0003]).

Regarding claim 7, Ueno et al teach the method of claim 1 and wherein the movement of the tray is tray-out (ejects a disk out of the disk drive or ejection, page 1 para [0003]).

Regarding claim 8, Ueno et al teach the method of claim 1, and wherein the method is started with an applied software (central processing unit (MPU) and a PC, page 34 para [0607] and see also fig. 47).

Regarding claim 9, Ueno et al teach a method of determining an optimal control profile for adjusting tray-in/out speeds of a tray in an optical disk drive, comprising: setting a plurality of control profile sets (FIGS. 49 and 50 show profiles during loading and ejection of the PWM driving circuit of the disk loading drive according to the present invention, page 34 para [0612]); driving the tray for movement according to an initial control profile which is one of the control profile sets for deriving a tray speed function (controlling means based on a predetermined drive profile in which a speed is set differently, page 15 para [0290]); and selecting an optimal control profile from the control profile sets according to the tray speed function (for the purpose of measuring a loading time and an ejection time and calculating an optimal drive profile, page 9 para [0169]).

Regarding claim 10, Ueno et al teach the method of claim 9, and wherein the movement of the tray is tray-in (loading a tray into inside a disk drive or loading, page 1 para [0003]).

Regarding claim 11, Ueno et al teach the method of claim 9, and wherein the movement of the tray is tray-out (ejects a disk out of the disk drive or ejection, page 1 para [0003]).

Regarding claim 12, Ueno et al teach the method of claim 9, and wherein the method is started with applied software (central processing unit (MPU) and a PC, page 34 para [0607]).

Regarding claim 13, Ueno et al teach the method of claim 9, and wherein the method is capable of being stopped by a user for selecting the optimal control profile from the control profile sets according to individual preference (manual loading operations, para [0419] to [0427]).

Regarding claim 14, Ueno et al teach a method of determining an optimal control profile for adjusting opening/closing speeds of a cover in an optical disk drive, comprising: setting a plurality of control profile sets (FIGS. 49 and 50 show profiles during loading and ejection of the PWM driving circuit of the disk loading drive according to the present invention, page 34 para [0612]); driving the cover for movement according to an initial control profile which is one of the control profile sets for deriving an cover speed function (controlling means based on a predetermined drive profile in which a speed is set differently, page 15 para [0290]); and selecting an optimal control profile from the control profile sets according to the cover speed function (for the purpose of measuring a loading time and an ejection time and calculating an optimal drive profile, page 9 para [0169]).

Regarding claim 15, Ueno et al teach the method of claim 14, and wherein the movement of the cover is cover-open (loading a tray into inside a disk drive or loading, page 1 para [0003]).

Regarding claim 16, Ueno et al teach the method of claim 14, and wherein the movement of the cover is cover-close (ejects a disk out of the disk drive or ejection, page 1 para [0003]).

Regarding claim 17, Ueno et al teach the method of claim 14, and wherein the method is started with applied software (central processing unit (MPU) and a PC, page 34 para [0607] and see also fig. 47).

Regarding claim 18, Ueno et al teach the method of claim 14, and wherein the method is capable of being stopped by a user for selecting the optimal control profile from the control profile sets according to individual preference (manual loading operations, page 19 para [0419] to [0427]).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 270-1816. The examiner can normally be reached on Monday to Friday 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH
Patent Examiner
Art Unit 2627
10/23/07

HOA T. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
11/13/07